IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pfleger et al. Art Unit: 2165

Serial No.: 10/802,958 Examiner: Christyann R. Pulliam

Filed: March 17, 2004 Conf. No.: 4198

Title: METHODS AND SYSTEMS FOR IMPROVING A SEARCH RANKING USING

POPULATION INFORMATION

Mail Stop Appeal Brief - Patents

Commissioner for Patents

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REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Applicant responds to the Examiner's Answer mailed December 26, 2007 as follows:

At page 10, line 15 – page 11, line 4, in acknowledging that the recitation of "operable to" does not form the basis of a rejection under 35 U.S.C. § 101, the Examiner's Answer contends that

"[t]he issue with 'operable to' is that it is optional language that does not require the occurrence of the steps only the capability (See MPEP § 2111.04). The Examiner suggested the change to 'configured to' because it is corresponding terminology that does require that the steps actually occur. It would have been more clear to place this suggestion in a separate 112(1st paragraph) rejection or in the interpretation of the claims with the prior art rejection..." See Examiner's Answer mailed December 26, 2007, page 10, line 15 – page 11, line 4.

In the interest of advancing prosecution, applicant would like to point out that M.P.E.P. §
2111.04 does not support the contention that a recitation of "operable to" supports a rejection
under 35 U.S.C. § 112, first paragraph, or the contention that a reinterpretation of the claims is
warranted.

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As for a potential rejection under 35 U.S.C. § 112, first paragraph, M.P.E.P. § 2111.04 makes no mention of 35 U.S.C. § 112, first paragraph, at all. Indeed, there is no reason to believe that any requirement under 35 U.S.C. § 112, first paragraph, is not satisfied due to claims allegedly not requiring "the occurrence of the steps."

As for a reinterpretation of the claims, Applicant would like to point out that M.P.E.P. § 2111.04 acknowledges that clauses such as "adapted to" or "adapted for" can raise a question as to limiting effect. However, M.P.E.P. § 2111.04 also acknowledges that, when such clauses state "a condition that is material to patentability, [they] cannot be ignored in order to change the substance of the invention." One exception to this is such clauses "in a method claim ... when [they] simply [express] the intended result of a process step positively recited."

In the present case, claim 41 relates to an article that comprises one or more machinereadable media storing instructions. The instructions are operable to cause one or more machines to perform operations. Claim 41 thus does not recite an intended result of a method step and the exception noted in M.P.E.P. § 2111.04 is inapplicable. Accordingly, it is inappropriate for the Examiner to ignore the recited subject matter and change the substance of the invention.

At page 11, line 4–7, the Examiner's Answer contends that "[c]laim 41 only claims an article comprising one or more machine-readable media storing instructions with the capability to perform the steps, which would allow for a broad interpretation and a rejection based [on] any computer-readable medium or computer."

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Applicant respectfully disagrees. As a threshold matter, claim 41 relates to an "article

comprising one or more machine-readable media storing instructions operable to cause one or

more machines to perform operations." The recited instructions are not "with the capability to

perform" the recited operations. Instead, the recited instructions are "operable to cause one or

more machines to perform operations."

Moreover, applicant disagrees with the premise that claims must necessarily recite that

operations "actually be performed." For example, the recitation that "a hammer that is operable

to drive a nail into wood" defines structural features of the hammer. A hammer that has a head

made out of Styrofoam or marshmallow will not satisfy this recitation, whether or not a

hammering operation were "actually performed."

The continued insistence that operations "actually be performed" is thus understood to

represent the Examiner's unsupported belief that in no way reflects any established requirement

for patentability. Accordingly, Applicant respectfully requests that the Board acknowledge that

the recitation of an "article [that comprises] one or more machine-readable media storing

instructions operable to cause one or more machines to perform operations" is proper in all

respects.

At page 11, line 13-page 13, line 9, the Examiner's Answer, in contending that the

"article [that comprises] one or more machine-readable media storing instructions operable to

cause one or more machines to perform operations" recited in claim 41 is non-statutory subject

matter, asserts that "Applicant's specification does not clearly support the argument that there are

two classes [of machine-readable media] defined separately enough to overcome a 101 non-

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statutory rejection." The Examiner's Answer also cites to an excerpt of Applicant's specification and contends that a rejection under 35 U.S.C. § 101 is proper based on this excerpt failing to "create two distinct classes" of machine-readable media.

Applicant respectfully disagrees and submits that the recited machine-readable media that store instructions are statutory. To begin with, it is well-established that Applicants need not define terms that are well-known in the art, or to "create two distinct classes" of machine-readable media. Instead, "the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification." See, e.g., M.P.E.P. § 2111.01 (citing In re Zletz, 893 F.2d 319 (Fed. Cir. 1989) (emphasis added).

In the present case, applicants have not redefined the storage of instructions away from the plain meaning. Indeed, the Examiner's Answer acknowledges this when it bases the rejection on Applicant's alleged failure to create an appropriate definition. Any interpretation that encompasses the allegedly non-statutory machine-readable media that store instructions to include machine-readable media that transmit or carry instructions to a computer is this improper.

Moreover, there is no reason to believe that those of ordinary skill would be unable to recognize that machine-readable media that store instructions are distinct from machine-readable media that transmit or carry instructions to a computer. Applicant respectfully submits that applicant is under no burden to "clearly support the argument that there are two classes" of machine-readable media when those of ordinary skill can readily distinguish between the storage of instructions and the transmission or carrying of instructions.

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distinctions quite well.

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Indeed, the citations pointed to at page 11, line 19-20 of the Examiner's Answer (i.e., M.P.E.P. § 2106-2106.02 and *In re Nuitjen*, Docket No. 2006-1371 (Fed. Cir. Sept. 20, 2007)) demand that applicants and the examining corps be able to distinguish between machine-readable media that store instructions and machine-readable media that transmit or carry instructions. In particular, these citations contend that transitory, propagating signals are excluded from patentable subject matter while acknowledging that instructions that are stored on a machine-readable media can recite patentable subject matter. Indeed, the Examiner seems to handle these

If the Examiner insists on maintaining the rejection, the Examiner is respectfully requested to explain how applicants have <u>redefined</u> the storage of machine-readable instructions away from the plain and ordinary meaning. In the alternative, applicant respectfully requests that the Examiner explain how the distinction between transitory, propagating signals and stored instructions, relied upon by the Court of Appeals for the Federal Circuit and the M.P.E.P., is not clear to those of ordinary skill.

For at least these reasons, Applicant submits that claim 41 recites patentable subject matter and requests that the rejection of claim 41 under 35 U.S.C. § 101 be withdrawn.

At page 14, line 4-6, the Examiner's Answer contends that "Whitman adjusts the score for a search based on the number of hits returned."

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Applicant would like to clarify that Whitman adjusts the score for a search query based on a number of hits returned by that same search query. As discussed previously, Whitman's search refinement system uses a history of search queries to generate related search phrases. See, e.g., Whitman, col. 3, line 39-42. These related search phrases can be used by other users and increase the likelihood the search of a present user can be refined. See, e.g., id., col. 3, line 48-

This adjustment of the score for a search query is described in the sections of Whitman cited by the Examiner. For example, Whitman describes that:

"search phrases may be scored in-whole or in-part based on the number of hits produced, as reflected within the log, with search phrases that produced relatively small numbers of hits (but more than zero) being scored more highly." See Whitman, col. 5, line 52-57.

As discussed in the appeal brief, a "search phrase" is not a document in a result set that is responsive to a search query. Instead, a search phrase is a search phrase. Whitman thus does not rank the popularity of documents but rather ranks search phrases— the very point emphasized by Applicant in the October 3, 2007 Appeal Brief.

Moreover, the rejection has set forth no basis on which one of ordinary skill would find it obvious to rank documents based on this teaching by Whitman. Instead, the rejection appears to be content to blur the distinction between ranking documents and ranking the search queries by mischaracterizing Whitman.

At page 14, line 4-6, the Examiner's Answer contends that "the important element used from Whitman in this 103 rejection is the acknowledgement of the fact that the number of results returned for a particular query impacts its usefulness."

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While Applicant appreciates the recognition that the number of results returned by a particular query impacts the usefulness of that particular query. Applicant again reiterates that one of ordinary skill would not find it obvious to arrive at the recited subject matter based on Whitman's ranking of the usefulness of a query. In particular, claim 29 recites that a ranking of a popularity of a document is changed based at least in part on the breadth of the search query with a responsive result set in which the document is found. Whitman thus does not provide any description or suggestion that the number of results returned for a search query somehow impacts the ranking of a document in a result set response to that query.

At page 14, line 15-17, the Examiner's Answer contends that "with this knowledge [of the number of results returned by a particular query] in a database, Barrett can use that information and include the consideration of query breadth along with the myriad of other criteria that can be used to re-rank query results."

Applicant respectfully submits that this contention not only misstates the obviousness standard but also represents hindsight-based reconstruction of applicant's claimed subject matter.

In this regard, the contention is understood to contend that because Barrett is not foreclosed from using Whitman's information to arrive at the recited subject matter, the recited subject matter would have been obvious to those of ordinary skill. This mischaracterizes the standard for obviousness. Congress could not have drafted 35 U.S.C. §103(a) to exclude, from patentability, all subject matter except that which is *impossible* to achieve.

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Instead, the obviousness standard has consistently required that the recited subject matter, taken as a whole, not have been obvious to those of ordinary skill. As discussed above and in the Appeal Brief filed October 3, 2007, neither Whitman nor Barrett would lead one of ordinary skill to change a rank of the popularity of a document based at least in part on the breadth of the search query with a responsive result set in which the document is found. Accordingly, the obviousness rejections are improper.

At page 14, line 17 - page 16, line 9, the Examiner's Answer repeats many of the contentions discussed above.

Applicant respectfully submits that these contentions are unsupported and/or improper, for at least the reasons discussed above.

At page 16, line 10 – page 17, line 8, the Examiner's Answer contends that "the combination of Barrett and Whitman teach all the limitations of claims 29 and 41" and that "Barrett and Whitman are from the analogous art of improving search results." The Examiner's Answer also proceeds to list a series of "fundamental elements in common" between Barrett and Whitman.

As for the contention that Barrett and Whitman teach all the limitations of claims 29 and 41, applicant respectfully disagrees. As discussed above and in the Appeal Brief, Barrett and Whitman neither describe nor suggest changing a rank of the popularity of a document based at least in part on the breadth of the search query with a responsive result set in which the document is found, as recited. There is no reason to believe that, even if Barrett and Whitman were combined, one of ordinary skill would arrive at the recited subject matter. Accordingly, claims 29 and 41 are not obvious over Barrett and Whitman.

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As for the contention that Barrett and Whitman are from the analogous art of improving

search results and that there are many fundamental elements in common between Barrett and

Whitman, as discussed above, regardless of their common fundamental elements, <u>Barrett and</u>

Whitman fail to describe or suggest the recited matter. There is no reason to believe that, even if

Barrett and Whitman were combined, one of ordinary skill would arrive at the recited changing of a rank the popularity of a document based at least in part on the breadth of the search query

with a responsive result set in which the document is found. Accordingly, claims 29 and 41 are

not obvious over Barrett and Whitman.

For these reasons, and the reasons stated in the Appeal Brief, Applicant submits that the

final rejection should be reversed.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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